**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1 (Currently Amended). A screening method for simultaneous detection of diarrheagenic *Shigella* ~~*spp.*~~species and *E. coli* (DEC) including A/EEC & EPEC, ETEC, VTEC, EIEC and strains with the *ehxA* gene~~.~~, wherein said method comprises:

a) detecting *Shigella* species by detecting the presence of the *ipaH* gene;

b) incorporation of a 16S rDNA positive control;

c) primers chosen to match all clinically relevant subtypes of the given virulence gene;

d) performance with multiplex PCR;

e) a PCR setup designed to enclose all primer sets in one single reaction, leading to the specific amplification of any given template present;

f) primers selected from table 3;

g) use of the UNG system.

2 - 38 (Canceled).

39 (New). The screening method according to claim 1, detecting the genes selected from the group comprising: *ipaH, eae, sta, vtx1, vtx2,* and *elt,* parts of these genes or products of these genes or parts thereof, such as RNA or polypeptides.

40 (New). The screening method according to claim 1, detecting the genes selected from the group comprising: *ipaH, eae, ehxA, sta, vtx1, vtx2, elt*, and *bfpA,* parts of these genes or products of these genes or parts thereof, such as RNA or polypeptides.

41 (New). The screening method according to claim 1 wherein the genes are detected by size identification.

42 (New). The screening method according to claim 41 wherein the means for detecting by size identification is performed by agarose gel electrophoresis or capillary electrophoresis.

43 (New). The screening method according to claim 1 wherein the genes are detected with a hybridization probe.

44 (New). The screening method according to claim 43 wherein the probes are selected from table 7.

45 (New). The screening method according to claim 1 wherein the material to be analyzed is selected from the group consisting of stool samples, consumables, bacterial cultures, and sewage samples.

46 (New). The screening method according to claim 45, in which the testing is carried out on a sample from a human or an animal or from food or beverages.

47 (New). The screening method according to claim 1, in which the primers used are selected from the group consisting of:

a) the primers of table 3;

b) sequences having a sequence identity of at least 80% (such as at least 85%, at least 90%, or at least 95%) with the primer sequences of a);

c) parts of the sequences in a) or b), having a length of more than 10, preferably more than 13 nucleotides;

d) sequences comprising a sequence in a), b) or c), said sequence having a length of no more than 100 nucleotides.

48 (New). The screening method according to claim 47 wherein said primers consist of 14, 15, 16, 17, 18, 19, 20, 21 or 22 consecutive nucleotides of the sequences in a) or b).

49 (New). The screening method according to claim 47 wherein said primers consist of at most 90, 80, 70, 60, 50, 40, or 30 nucleotides of the sequences comprising a), b), or c).

50 (New). The screening method according to claim 1, in which the probes used are selected from the group consisting of:

a) the probe sequences of table 7;

b) sequences having a sequence identity of at least 80% with the primer sequences of a);

c) parts of the sequences in a) or b), having a length of more than 10, preferable more than 16 nucleotides, such as more than 17, 18, 19 or 20 nucleotides;

d) sequences comprising a sequence in a), b) or c), said sequence having a length of no more than 100 nucleotides.

51 (New). The screening method according to claim 50 wherein said probes have at least 85%, 90%, or 95% sequence identity with the sequences of a).

52 (New). The screening method according to claim 50 wherein said probes consist of 14, 15, 16, 17, 18, 19, 20, 21 or 22 consecutive nucleotides of the sequences in a) or b).

53 (New). The screening method according to claim 50 wherein said probe consist of at most 90, 80, 70, 60, 50, 40, or 30 nucleotides of the sequences comprising a), b), or c).

54 (New). A kit which comprises, in a single or in separate containers, nucleotide sequences which are able to prime amplify, in a nucleotide sequence amplification reaction, the genes: *ipaH, eae, sta, vtx1, vtx2,* and *elt* or parts of these genes or the complementary strands to the genes or parts thereof and which comprises a control.

55 (New). The kit according to claim 54 wherein the sequence amplification reaction is PCR.

56 (New). The kit according to claim 54 wherein the control consists of primers for 16s rDNA.

57 (New). The kit according to claim 54 wherein the nucleotide sequences for priming are selected from the group consisting of the priming sequences in table 3.

58 (New). The kit according to claim 54 wherein the nucleotide sequences for probing are selected from the group consisting of the probe sequences in table 7.

59 (New). The kit according to claim 54 which comprises a means for detecting by size identification.

60 (New). The kit according to claim 59 wherein the means for detecting by size identification is performed by agarose gel electrophoresis or capillary electrophoresis.